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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,992	07/05/2001	Sam Shiaw-Shiang Jiang	ASTP0013USA	1171

7590 03/07/2007
NAIPO (North America International Patent Office)
P.O. Box 506
Merrifield, VA 22116

EXAMINER

JACKSON, JENISE E

ART UNIT	PAPER NUMBER
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2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/681,992

Applicant(s)

JIANG ET AL.

Examiner

Jenise E. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Cao(6,876,639).
3. As per claim 1, Cao discloses an interleaved local suspend and reset method for a wireless communications system(see col. 9, lines 15-45), the wireless communications system including a first station in wireless communications with a second station along at least one channel(see col. 4, lines 6-23), the first station initiating a local suspend function for the channel(see col. 4, lines 23-30) to perform a ciphering configuration change(see col. 6, lines 25-51), a suspend point determined by a first sequence number (SN); prior to a resume command to terminate the local suspend function, initiating a reset procedure for the channel(see col. 4, lines 39-56), the reset procedure causing a next layer 2 protocol data unit to be transmitted have an SN equal to default value(see col. 9, lines 15-45); in response to the reset procedure, setting the first SN of the suspend point equal to a default value; and awaiting the resume command for the channel to terminate the local suspend function, wherein the default value is zero(see col. 4, lines 51-64, col. 9, lines 15-45, col. 6, lines 40-51).
4. As per claim 2, Cao discloses wherein setting the first SN of the suspend point equal to the default value causes the first station to thereafter immediately halt transmission of layer 2

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(PDUs) to the second station along the channel while the local suspend function for the channel is active(see col. 8, lines 39-67).

5. As per claim 3, Cao discloses wherein the suspend point comprises a hyper-frame number (HFN) associated with the SN of the suspend point, and in response to the reset procedure, the HFN is set equal to a transmitting HFN of the first station(see col. 9, lines 15-45).

6. As per claim 4, Cao discloses wherein a prior ciphering configuration for the channel is used before the resume command, and a new ciphering configuration is used for the channel after the resume command(see col. 6, lines 25-51).

7. As per claim 5, Cao discloses an interleaved local suspend and reset method for a wireless communications system(see col. 9, lines 15-45), the wireless communications system comprising a first station in wireless communications with a second station along at least one channel(see col. 4, lines 6-23), to perform a ciphering configuration change(see col. 6, lines 25-51), the first station initiating a local suspend function for the channel a suspend point determined by a first sequence number (SN) and a first hyper-frame number (HFN) to form a first HFN/SN pair(see col. 4, lines 23-56); prior to a resume command to terminate the local suspend function, initiating a reset procedure for the channel, the reset procedure causing a next layer 2 protocol data unit(PDU) to be transmitted have an associated HFN/SN pair having an incremented HFN value and an SN value equal to zero(see col. 4, lines 39-56, col. 6, lines 40-51); after the reset procedure, and prior to terminating the local suspend function, the first station transmitting along the channel to the second station no layer 2 (PDUs) having associated HFN/SN pairs that are sequentially after the first HFN/SN pair; and awaiting the resume command for the channel to terminate the local suspend function(see col. 9, lines 15-45).

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8. As per claim 6, Cao discloses wherein a prior ciphering configuration for the channel is used before the resume command, and a new ciphering configuration is used for the channel after the resume command(see col. 6, lines 25-51).

9. As per claim 7, Cao discloses wherein after the reset procedure, and prior to terminating the local suspend function, the first station transmits along the channel to the second station layer 2 PDUs having associated HFN/SN pairs that are sequentially before the first HFN/SN pair(see col. 9, lines 19-45).

Response to Amendment

10. The Applicant states that Cao does not disclose a ciphering configuration change. The Examiner disagrees with the Applicant. Cao discloses a ciphering configuration change, because when the mobile host is in handoff, the TCPHN algorithm maintains a number of state variables. Each time the TCPHN algorithm receives a notification that the mobile host is in handoff, the TCPHN algorithm modifies the state of TCPHN-H variable to denote the handoff(see col. 6, lines 25-50). The Examiner asserts that this modified state is the ciphering configuration change. If the Applicant has a more specific definition of what ciphering configuration change is than the Applicant is urged to amend claims.

11. The Applicant states that Cao does not disclose a reset procedure causing a next layer 2 protocol data unit(PDU) to be transmitted have an SN equal to a default value wherein the default value is zero. The Examiner disagrees. Cao discloses the TCP context is reset to the last acknowledged packet as specified in the acknowledgement packet received. Furthermore, the packet that is received has a sequence number(46, fig. 4 sheet 4). Normal TCP transmission is resumed(see col. 9, lines 38-41). Cao discloses that a TCPHN algorithm receives a notification

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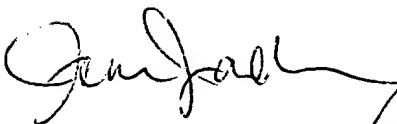
from the physical layer that the mobile host is in handoff, the TCPHN variable to denote the handoff(see col. 6, lines 40-46). The TCPHN may be in a binary state variable or any other type of state suited to denote the beginning and the end of a mobile handoff. The TCPHN could be a binary state variable set to a non-zero value when a handoff is in progress and set to zero when a handoff is not in progress. The TCPHN could be set to zero to denote a handoff is in progress and to a non-zero value otherwise(see col. 6, lines 40-51).

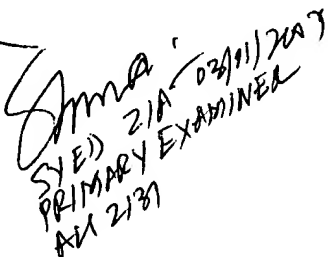
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E. Jackson whose telephone number is (571) 272-3791. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


February 28, 2007


SYED 21A 03/11/2007
PRIMARY EXAMINER
AM 2131